



Image

2833

AF

4

PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q62188

Masayuki KONDO

Appln. No.: 09/732,787

Group Art Unit: 2833

Confirmation No.: 2734

Examiner: Felix O. FIGUEROA

Filed: December 11, 2000

For: WATERPROOFING APPARATUS FOR TERMINAL CONNECTING PORTION OF
SHEATHED WIRE

SUBMISSION OF APPELLANT'S BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an original and two copies of Appellant's Brief on Appeal. A check for the statutory fee of \$330.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

Diallo T. Crenshaw
Registration No. 52,778

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: February 20, 2004



PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q62188

Masayuki KONDO

Appln. No.: 09/732,787

Group Art Unit: 2833

Confirmation No.: 2734

Examiner: Felix O. FIGUEROA

Filed: December 11, 2000

For: WATERPROOFING APPARATUS FOR TERMINAL CONNECTING PORTION OF
SHEATHED WIRE

APPELLANTS' BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 1.192, Appellant submits the following:

The following comprises Appellant's Brief on Appeal from the final rejection dated August 22, 2003, rejecting claims 4 and 6-8. This Appeal Brief is filed in triplicate and is accompanied by the required appeal fee as set forth in 37 C.F.R. § 1.17(c). Appellant's Notice of Appeal was filed on December 22, 2003. The present Appellant's Brief on Appeal is timely filed.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee, YAZAKI CORPORATION.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 4 and 6-8 are all the claims pending in the application. Claims 4 and 6-8 are set forth in the Appendix. Claims 1-3 and 5 have been canceled.

Claims 4 and 7 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's Admitted Prior Art (APA) in Fig. 6 in view of Gerrans, Jr. (U.S. Patent No.: 5,885,108). Claims 6 and 8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the APA in Fig. 6 in view of Gerrans, and further in view of Hauchard et al. (U.S. Patent No.: 4,969,845), hereinafter referred to as Hauchard.

IV. STATUS OF AMENDMENTS

Subsequent to the final action, claims 1-3, which were previously withdrawn from consideration, were canceled, and a clarifying amendment was submitted thereby clarifying that claim 5 was canceled.¹

V. SUMMARY OF THE INVENTION

The present invention relates to a terminal structure having a terminal fitting that has a terminal connecting portion that is waterproofed by a molding portion comprising resin molding. Conventionally, the prior art includes a terminal fitting 8, a terminal connecting portion, and a

¹ Claim 5 was canceled in the Amendment dated February 19, 2003.

molded portion 4, as shown in Fig. 6 of the present application. Several problems exist in the prior art that make the present claimed invention more desirable. One problem in the prior art is that the structure of the conventional molding part results in the unwanted flow of molding resin outside of a die during the molding operation of the molding part. *See Fig. 6 and page 2, line 22 - page 3, line 5 of the present application.* Another problem in the prior art is that during the molding operation, the molding resin contacting a plate 9 within the molding part 4 takes a longer time to cool and harden than other parts of the molding part; thus productivity is lowered. *See page 3, lines 6-13.* A further problem is that peeling easily starts at the rear part of the terminal connecting portion, when a sheathed wire which is waterproofed by a molding portion is bent. *See page 3, lines 14-19.*

In an effort to overcome the above-discussed problems in the conventional technology, the present invention provides, in an exemplary embodiment, a terminal structure of a sheathed wire, the terminal structure including a terminal fitting, a terminal connecting portion at a rear end portion of the terminal fitting at which the terminal fitting and a bare conductor of the sheathed wire is connected, and a molded portion which covers and waterproofs at least the terminal connecting portion. In the above-described exemplary embodiment, a circumferential size of the molded portion from a part corresponding to the terminal connecting portion is continuously reduced, so that a rear end portion of the molded portion has a same diameter as a diameter of the sheathed wire, and there is no increase in the circumferential size of the molded portion in a first direction parallel to a direction in which the terminal fitting extends, as the circumferential size of the molded portion is continuously reduced. *See claim 4.*

VI. ISSUES

This appeal presents the following issues:

1. Whether the subject matter of claims 4 and 7 would have been obvious, within the meaning of § 103, over Applicant's Admitted Prior Art (APA) in Fig. 6 in view of Gerrans.
2. Whether the subject matter of claims 6 and 8 would have been obvious, within the meaning of § 103, over the APA in Fig. 6 in view of Gerrans, and further in view of Hauchard.

VII. GROUPING OF CLAIMS

For purposes of the present appeal, the rejected claims do not stand or fall together. Specifically, the rejected claims are divided into the following separately patentable groups.

Group 1: Claims 4 and 7.

Group 2: Claim 6 and 8.

VIII. ARGUMENTS

1. Claims 4 and 7 would NOT have been obvious, within the meaning of § 103, over Applicant's Admitted Prior Art (APA) in Fig. 6 in view of Gerrans.

Appellant submits that the present invention, as recited in claims 4 and 7, is patentable over the applied references, either alone or in combination, at least based on the following. In the Office Action dated April 3, 2003, the Examiner alleged:

Gerrans teaches a molded portion (16) wherein a circumferential size of the molded portion from a part corresponding to the terminal connecting portions is continuously reduced, so that the

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/732,787

rear end portion has a same diameter as the cable (22), and wherein there is no increase in the circumferential size of the molded portion in a direction parallel to a direction in which the terminal fittings extend in order to provide a smoother gripping on the molded portion. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the molded portion of APA being continuously reduced, as taught be Gerrans, to provide a smoother gripping on the molded portion. (Emphasis added.)

In response, first, Appellant submits that nowhere does Gerrans teach or suggest that the alleged molded portion of Gerrans provides a smoother gripping.² In fact, nowhere does Gerrans discuss something or someone holding or gripping the outer covering 16 of Gerrans. The Examiner simply states that the outer covering 16 provides a smoother gripping (*see bottom of page 2 of the April 3rd Office Action*) without providing support for this assertion.

Yet further, even if, *assuming arguendo*, the outer cover 16 of Gerrans does provide a smoother gripping, as the Examiner asserts, Appellant submits that it is not clear how the alleged smoother gripping outer covering 16 of Gerrans would have been incorporated into the APA, to arrive at the present invention. That is, nowhere does the present application disclose that the APA in Fig. 6 would even be gripped. Moreover, even if it were to be gripped, or held, nowhere does the present application disclose where and/or how the APA structure would be gripped, or how it would benefit from the alleged smooth gripping molded portion of Gerrans. Therefore, in

² By using the words "smoother gripping", Appellant believes that the Examiner intends to indicate that the molded portion is better able to be seized or held.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/732,787

view of the above, Appellant submits that one skilled in the art would NOT have been motivated to combine Gerrans with the APA, to provide a smoother gripping on the molded portion.

In response to Appellant's arguments above, the Examiner asserted new arguments in the *Response to Arguments* section of the Office Action dated August 22, 2003, on pages 3 and 4 thereof. Specifically, the Examiner alleged that "it would have been evident to one skilled in the art that a contoured shape, as taught by Gerrans provides a smoother gripping by avoiding substantially sharp or pointy edges that are uncomfortable to a user's hand." In response, first, Appellant submits that nowhere does Gerrans teach or suggest that the shape of the alleged molded portion is "contoured", and that there is no support for labeling the molded portion as such. Also, Appellant submits that just because the alleged contour shaped molded portion (which the Examiner alleges provides smoother gripping) does not appear to show sharp or pointy edges, it does not necessarily follow that the molded portion would provide smoother gripping. That is, a molded portion that does not have sharp or pointy edges could, in fact, not provide smoother gripping based on several other factors, including the texture, size, length, etc., of the molded portion. For example, even if a molded portion has a contoured shape and no sharp or pointy edges, it could be difficult to grip the molded portion if the texture of the molded portion is slippery or sloped awkwardly. Therefore, even if, *assuming arguendo*, the molded portion of Gerrans avoids substantially sharp or pointy edges, it does not necessarily follow that such molded portion would provide smoother gripping.

Further, Appellant submits, in response to the Examiner's assertions, that nowhere does the present application disclose that the APA in Fig. 6 would be gripped. Moreover, even if it

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/732,787

were to be gripped, or held, nowhere does the present application disclose where and/or how the APA structure would be gripped, or how it would benefit from the alleged smooth gripping molded portion of Gerrans. Thus, the combined teachings of the references would NOT have led one of ordinary skill in the art to arrive at the present claimed invention. Furthermore, in view of the above, one skilled in the art would NOT have even been motivated to combine Gerrans with the APA, for the alleged purpose of providing a smoother gripping on the molded portion.

Therefore, at least based on the foregoing, Appellant submits that claims 4 and 7 are patentable over the applied references, either alone or in combination.

2. Claims 6 and 8 would NOT have been obvious, within the meaning of § 103, over the APA in Fig. 6 in view of Gerrans, and further in view of Hauchard.

Appellant submits that claims 6 and 8 are patentable at least by virtue of their dependency from claim 4. Hauchard does not make up for the deficiencies of the APA and Gerrans as discussed above.

Therefore, at least based on the foregoing, Appellant submits that claims 4 and 6-8 are patentable over the applied references.

Finally, Appellant submits that claims 4 and 6-8 do not stand or fall together.

With respect to claims 4 and 7 (Group 1), Appellant submits that these claims are separately patentable over claims 6 and 8 (Group 2), at least because the APA in Fig. 6 in view of Gerrans does not teach or suggest the limitations of claims 6 and 8, respectively. This is

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/732,787

implicitly admitted by the Examiner by the fact that the Examiner applies a third reference, Hauchard, to support the rejections of claims 6 and 8.

The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §1.192(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Diallo T. Crenshaw
Registration No. 52,778

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: February 20, 2004



APPENDIX

CLAIMS 4 AND 6-8 ON APPEAL:

4. A terminal structure of a sheathed wire, comprising:

a terminal fitting;

a terminal connecting portion at a rear end portion of the terminal fitting at which the terminal fitting and a bare conductor of the sheathed wire is connected; and

a molded portion which covers and waterproofs at least the terminal connecting portion,

wherein a circumferential size of the molded portion from a part corresponding to the terminal connecting portion is continuously reduced, so that a rear end portion of the molded portion has a same diameter as a diameter of the sheathed wire, and

wherein there is no increase in the circumferential size of the molded portion in a first direction parallel to a direction in which the terminal fitting extends, as the circumferential size of the molded portion is continuously reduced.

6. The terminal structure as set forth in claim 4, wherein the molded portion has a plurality of alternate concave grooves and convex ribs formed thereon in a direction parallel to the first direction.

7. The terminal structure as set forth in claim 4, wherein a part of the molded portion is flush with one side of the terminal connecting portion.

8. The terminal structure as set forth in claim 6, wherein said plurality of alternate concave grooves and convex ribs are arranged side by side in a second direction perpendicular to the first direction.